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ABSTRACT

This study contrasted current job situations and existing vocational training program enrollments for males and females within clerical, data processing, and technical areas of industry. All vocational schools located in the eight northern parishes of Louisiana were surveyed concerning the numbers of males and females enrolled in clerical, data processing, and technical specialty programs of study. Likewise, a representative number of companies located in the same parishes were randomly selected and surveyed concerning the numbers of employees by sex currently functioning within the representative vocational areas. Data were analyzed and showed that vocational-technical schools continue to train higher percentages of females than males for traditionally female-dominated career positions and have increased only slightly the percentages of females being trained for traditionally male-dominated career positions. The two exceptions to these practices were in programming, where there was a significant increase in percentages of females being trained for this traditionally male-dominated position, and in quantity foods, where there was a significant increase in percentages of males being trained for this traditionally female-dominated position. The findings suggest a trend showing greater numbers of females are being trained for many of the traditionally male-dominated positions, although these numbers have not significantly reduced the current discrepancies that exist among males and females currently employed in these positions. At the same time, males are not moving into traditionally female-dominated positions. (Author/KC)

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the over-representation of groups for researchers while maintaining a group of equal opportunity where all applicants are treated equally.

The research design has investigated the existing number of males and females currently employed in certain occupational positions as well as those currently being involved for these male type positions. The subjective views and training positions received here in these male areas: clerical, data processing, and technical specialty. The original purpose intended in order to examine affirmative positions as well. However, after actual investigations, it became apparent that there were an insufficient number of male/female workers for affirmative, and that such affirmative was required these objectives from administrative duties that female workers before. The decision was made to drop affirmative positions from the study and to add numerous technical specialty positions. This improved the study from the original research proposal.

Procedure

This study was conducted during spring 1991 and included all of management workers in the various business and of these of which, of 75, participated. Additionally, interviews in the area were selected to participate in the study. This provided personal interview and grouping ranges used by the occupational areas being examined from the Greenville, Florida, Dothan, and Birmingham metropolitan areas' police areas, and that randomly selected 150 of the employees from each grouping were questioned. A total of 30 employees in the various business area were selected of these 30 employees, 15 participated.

Each police and deputy selected were sent an introductory letter

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Table 5 contains the frequencies and percentages of males and females across the industrial and school categories of each type data processing position as well as the statistical test(s) that applied. Analyses indicated that there was a significant difference between males and females training to be, and employed as, programmers (χ^2 = [illegible], p<.01). Proportionately, more females were training for the normally "male dominated" programming positions than were males. The difference between industries and schools in the other type data processing positions were small and not statistically significant.

Table 5

Frequencies and Percentages of Males and Females in Data Processing Positions of Surveyed Industries and Schools

Data Processing Positions	Industries f	Industries %	Schools f	Schools %	Statistical Test
Computer Operators					
Females	7	41	3	43	χ^2 = Data Insufficient
Males	10	59	4	57	Fisher's Exact = p<.05
					Chi-square = Not Appropriate
Data Entry					
Females	19	100	6	86	χ^2 = Data Insufficient
Males	0	0	1	14	Fisher's Exact = p<.05
					Chi-square = Not Appropriate
Programmers					
Females	1	6	10	59	χ^2 = [illegible], p<.05
Males	16	94	14	41	Fisher's Exact = p<.05
					Chi-square = Not Appropriate

Note 1: Chi-square test of independence was not used to analyze these data due to an insufficient number of observations, which violates one of the assumptions for this statistical test.

Table 1 contains the frequencies and percentages of males and females within the industrial and school categories for several technical specialty positions, as well as the statistical test that applied. There was a significant difference between males and females training to be, and employed as, quantity food professionals (χ^2 = 28.000, $p < .01$). Proportionately, more males were training for the normally "female dominated" quantity food positions than were females. The differences between industries and schools in the other type technical specialty positions were small and not statistically significant.

Table 1

Frequencies and Percentages of Males and Females in Technical Specialty Positions of Surveyed Companies and Schools

Technical Specialty Positions	Industry		School		Statistical Test
	f	%	f	%	
Quantity Foodservice					
Females	0	0	3	1	χ^2 = data 1
Males	11	100	139	99	Fisher's = $p < .01$
					Results = SIG
Food Technology					
Females	0	0	6	3	χ^2 = data 1
Males	24	100	194	98	Fisher's = $p < .07$
					Results = SIG
Dietetics					
Females	12	92	0	0	χ^2 = data 1
Males	11	88	1	1	data 2
Teaching					
Females	1	14	35	32	χ^2 = data 1
Males	6	86	73	68	Fisher's = $p < .01$
					Results = SIG
Electronics					
Females	0	0	17	8	χ^2 = data 1
Males	0	100	197	92	Fisher's = $p < .03$
					Results = SIG
Graphic Arts					
Females	1	20	7	34	χ^2 = data 1
Males	3	75	0	66	Fisher's = $p < .07$
					Results = SIG

Table 3 (Con't)

Vocational Specialty Positions	Industry f	Industry %	School f	School %	Statistical Test
Nursing					
Females	470	99	321	94	χ^2 = 0.038, $p < .91$
Males	21	4	73	6	Fisher's = $p < .44$
					Result = NSD
Sewing Trade					
Females	133	71	12	27	χ^2 = 19.659, $p < .01$
Males	53	29	32	73	Fisher's = $p < .01$
					Results = SD
Welding					
Females	0	0	8	2	χ^2 = Note 1
Males	152	100	371	98	Fisher's = $p < .13$
					Result = NSD

Note 1 Chi-square test of independence was not used to analyze these data data due to at least 1 cell containing zero frequencies, which violates one of the assumptions for this statistical test.

Note 2 Of the sampled schools in this study, none reported students enrolled in the dietetics program. It was verified that none of the schools offered a program in dietetics.

Lastly, the positions were grouped and analyzed as either traditionally male-dominated positions or as traditionally female-dominated positions. In this study, the male-dominated positions consisted of the computer operator, programmer, air-conditioning, auto-mechanic, drafting, electronics, graphic arts, and welding positions. There was no significant difference between males and females training for or employed in these positions (χ^2 = 3.331, $p < .07$), although there was a noticeable difference between the percentages of females working in, and training for, traditionally male dominated positions, down 69 to 74 respectively (See Table 4).

Table 4

Frequencies and Percentages of Males and Females in Traditionally All Male-Dominated Positions

Sex	Industry f	Industry %	School f	School %	Statistical Tests
Females	10	4	90	7	χ^2 = 3.331, $p \leq .07$
Males	242	96	1180	93	Fisher's = $p \leq .08$ Result = NSD

The female-dominated positions consisted of the clerk typist, secretary, accountant, data entry, nursing, and quantity food positions. There was no significant differences between males and females training for or employed in these positions (χ^2 = 0.331, $p < .56$). There appeared to be a consistency between percentages of males and females working in, and training for, the traditionally female dominated positions (see Table 5).

Table 5

Frequencies and Percentages of Males and Females in Traditionally All Female-Dominated Positions

Sex	Industry f	Industry %	School f	School %	Statistical Tests
Females	877	92	1045	92	χ^2 = 0.331, $p \leq .57$
Males	81	8	88	8	Fisher's = $p \leq .62$ Result = NSD

Discussion

Generally it appeared that vocational-technical schools continue to train higher percentages of females than males for traditionally female-dominated career positions and have increased only slightly the percentages of females being trained for traditionally male-dominated career positions. The two exceptions to these practices were in programming, where there was a significant increase in percentage of females being trained for the traditionally male-dominated position, and in quantity foods, where there was a significant increase in percentages of males being trained for the traditionally female-dominated position. These findings were generally supported by a recent status report (Waugh, 1981).

The findings suggest a trend where greater numbers of females are being trained for many of the traditionally male-dominated positions, although these numbers have not significantly reduced the current discrepancies that exist among males and females currently employed in these positions. Also, there is a consistency in the percentages of males training for and working in traditionally female-dominated positions, suggesting that more males are not being attracted to these positions.

The implications of these findings are worth noting. First, industries have been expected to follow specified hiring practices designed to eliminate sexual discrimination, and often have been pressured to fill vacancies with qualified members from the non-traditional sex group. If the vocational-technical schools, which are the primary sources of trained labor for these industries, do not provide increased percentages of trained members from the non-traditional sex groups in these positions, the industries will continue to be unable to afford equal opportunity to its employment applicants. Also,

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